THE STATE OF SOUTH CAROLINA
In the Supreme Court

APPEAL FROM THE PUBLIC SERVICE COMMISSION

Appellate Case No. 2018-001165 and 2018-002117

Commission Docket No. 2018-2-E

South Carolina Coastal Conservation League and Southern Alliance for Clean Energy, Appellants,

v.

South Carolina Electric & Gas, CMC Steel South Carolina, South Carolina Energy Users Committee, South Carolina Solar Business Alliance, LLC, Southern Current, LLC and South Carolina Office of Regulatory Staff, Respondents;

and

South Carolina Solar Business Alliance, LLC, Appellant,

v.

South Carolina Coastal Conservation League and Southern Alliance for Clean Energy, South Carolina Electric and Gas, CMC Steel South Carolina, South Carolina Energy Users Committee, Southern Current, LLC, and South Carolina Office of Regulatory Staff,

Of whom South Carolina Electric & Gas and South Carolina Office of Regulatory Staff, are Respondents.

FINAL BRIEF OF APPELLANTS SOUTH CAROLINA COASTAL CONSERVATION LEAGUE AND SOUTHERN ALLIANCE FOR CLEAN ENERGY

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STATEMENT OF ISSUES ON APPEAL

1. Whether the South Carolina Public Service Commission erred by shifting the burden of proof for establishing an "avoided capacity" rate from a regulated electric utility seeking that rate onto those challenging the rate.

2. Whether the Public Service Commission erred by approving a regulated electric utility's elimination of avoided capacity rates without justifying that departure from past practice and without accounting for evidence demonstrating that such removal was unjust, unreasonable, and violated state law.

3. Whether the Public Service Commission erred when it allowed a regulated electric utility to discriminate against independent power producers by unjustifiably eliminating avoided capacity rates and by relying on a suboptimal resource plan, in violation of federal law.

STATEMENT OF THE CASE

This matter comes before the Court on appeal from a decision by the Public Service Commission of South Carolina (the "Commission") approving South Carolina Electric & Gas's ("SCE&G" or "the Company") most recent "avoided cost" rates paid for independently produced renewable energy. Setting accurate avoided cost rates is important because it determines whether solar power and other renewable energy facilities can compete with monopoly utilities and lower costs for South Carolina consumers.

Under the federal Public Utility Regulatory Policies Act of 1978 ("PURPA"), the Commission must set rates paid to independent renewable power producers at the utility's avoided cost of the next incremental unit of electricity that, but for the purchase from power from an independent renewable producer, the "utility would generate or purchase from another source." 16 U.S.C. § 824a-3(d). Not only must those rates be just and reasonable under South Carolina law, S.C. Code Ann. § 58-27-810, under federal law they must be just and reasonable, in the public interest, and not discriminatory against the independent renewable power producers, known as "qualifying facilities" ("QFs"), 16 U.S.C. § 824a-3(b); 18 C.F.R. § 292.304(a)(1).

The case began when the Commission initiated an annual review of SCE&G's fuel purchasing practices, a proceeding in which the Commission also approves SCE&G's avoided cost rates. (R. p. 219; Notice of Hearing and Prefile Testimony Deadlines).

Appellants, the South Carolina Coastal Conservation League and Southern Alliance for Clean Energy (collectively, the "Conservation Groups"), intervened in the docket,[1] as did CMC

[1] The Conservation Groups filed a petition to intervene on January 5, 2018, outlining their interests in the proceeding. The nonprofit South Carolina Coastal Conservation League "supports the development of energy policy that is in the public interest of South Carolinians" and has members across South Carolina who receive electricity service from SCE&G and are impacted by decisions regarding renewable energy and the recovery of avoided costs. (R. p. 228

Steel South Carolina, South Carolina Energy Users Committee, and South Carolina Solar Business Alliance, LLC ("SBA") and Southern Current, LLC. The South Carolina Office of Regulatory Staff ("ORS") appeared in the docket as a statutory party.

After the parties pre-filed testimony, the Commission held an evidentiary hearing on April 10 and 11, 2018. The parties submitted post-hearing briefs and proposed orders on April 19, 2018.

The Commission issued a final order on April 30, 2018, and a revised order on May 2, 2018, approving SCE&G's proposed avoided cost rates. (R. pp. 87-188; Order No. 2018-322; Order No. 2018-322(A)). The Conservation Groups, SBA, and ORS all petitioned for reconsideration of the Commission's approval of SCE&G's avoided cost rate and argued that the Commission had shifted the burden of showing that rate's validity from the utility to those challenging it. The Commission granted reconsideration on separate grounds urged by intervenor South Carolina Energy Users Committee, but denied all other grounds and issued a written directive to that effect on May 23, 2018. (R. pp. 207-18; May 23, 2018 Directives). The Conservation Groups filed a Notice of Appeal on June 21, 2018.

SCE&G filed a motion to dismiss the appeal on June 26, 2018, arguing that the Conservation Groups had not appealed a final order and in the alternative asking to hold the appeal in abeyance. This Court denied the motion to dismiss and held the appeal in abeyance on August 16, 2018 pending the Commission's final written order, which was issued on October 30,

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¶ 6; Conservation Groups' Petition to Intervene, p. 2). The nonprofit Southern Alliance for Clean Energy similarly has a mission "to promote responsible energy choices that create global warming solutions and ensure clean, safe and healthy communities throughout the Southeast." (R. p. 229 ¶ 7; Conservation Groups' Petition to Intervene, p. 3). Its members also receive electricity service from SCE&G and are interested in promoting greater reliance on clean energy resources, and therefore its members are impacted by the decisions made in this proceeding. The Commission granted the Conservation Groups' petition on February 21, 2018. (R. p. 86; Order No. 2018-129).

2018. (R. pp. 189-94; Order No. 2018-708). The Conservation Groups timely amended their Notice of Appeal of the Commission's May 2, 2018 order, the May 23, 2018 directive, and the October 30, 2018 order on November 27, 2018.

STATEMENT OF FACTS

The central issue in this appeal is whether the Commission erred in approving a regulated monopoly's artificially low rates for purchasing independently produced renewable power. PURPA,[2] the law being implemented by the Commission below, was enacted to prevent monopoly utility companies from stifling competition from competitive independently-produced renewable energy, including solar power. (R. p. 1289, line 4-p. 1,309, line 3; Tr. Vol. II, p. 659, l. 4 – p. 679, l. 3; p. 679, ll. 1-3).

Specifically, PURPA injects competition into monopolized energy markets by requiring incumbent utilities to pay independent renewable power plants at "avoided cost" rates that reflect the utility's marginal cost to produce that amount of power. (R. p. 821, lines 6-17; Tr. Vol. I, p. 191, ll. 6-17). If the avoided cost rate is set accurately, utility customers will be indifferent to whether power is generated by a QF or by the utility. If the avoided cost rate is set too low, however, customers will not realize the benefit provided by QFs and will pay more for incumbent utility power than they should. That is because arbitrarily low avoided costs rates deter QFs such as solar power providers from competing fairly against utility-owned resources to reduce ratepayer costs. (R. p. 1275, line 16-p. 1277, line 7; p. 1363, line 1-p. 1366, line 6; p. 1423, line 13-p. 1424, line 22; pp. 1446-53; Tr. Vol. II, pp. 645-647, 733-736, 793-794, 816-823), thus blocking the use of a cost-competitive resource that will drive down customer bills. *Id.*; (R. p. 1309, line 4-p. 1310, line 17; Tr. Vol. II, p. 679, l. 4 – p. 680, l. 17; p. 688, l. 21 – p.

[2] Public Utility Regulatory Policies Act of 1978, Pub. L. No. 95-617, 92 Stat. 3117 (codified as amended in scattered sections of 15, 16, 42, and 43 U.S.C.A.).

689, l. 5). Said another way, setting avoided cost rates too low means system costs will ultimately be too high because a utility's inefficient and overpriced resources are shielded from competition.

Avoided cost rates consist of several components. For example, the rates include the avoided marginal costs to generate energy (e.g., reduced fuel consumption and maintenance costs)—known as avoided "energy" costs. They also include the avoidance or deferral of capital investment into facilities (e.g., new fossil fuel plants)—known as "avoided capacity" costs. (R. p. 827, line 19-p. 828, line 11; Tr. Vol. I, p. 197, l. 19 – p. 198, l. 11). The rates must also take into account the avoidance of costs of meeting high, or "peak," energy demand, e.g., when customers are running their air conditioners or heaters. 18 C.F.R. § 292.304(e)(2); Order No. 69, *Small Power Production and Cogeneration Facilities; Regulations Implementing Section 210 of PURPA*, 45 Fed. Reg. 12,214, 12,225 (1980).

Whereas in prior years SCE&G included both avoided energy and avoided capacity components in its avoided cost rates, in the proceeding subject to this appeal SCE&G changed course and completely eliminated the avoided capacity component. SCE&G took the position that QF capacity is ***zero*** because solar does not help the Company meet system demands on cold winter mornings. (R. p. 838, line 7-p. 842, line 9; Tr. Vol. I, p. 208, l. 7 – p. 212, l. 9). To make this change, SCE&G relied solely on an unreviewed internal study said to show that solar resources must provide capacity in those hours to be of ***any*** value to the Company. (R. p. 839, line 12-p. 840, line 2; Tr. Vol. I, p. 209, l. 12 – p. 210, l. 2).

This result and the method departed from prior practice that had been approved by the Commission for years. Comparison of the methodologies used in this proceeding and past proceedings makes plain this departure in approach to avoided capacity rates. In prior years

SCE&G used a three step methodology where it: 1) calculated the avoided capacity value over a 15-year planning horizon comparing the difference in revenue requirements between a base case and a change case;[3] 2) identified the set of critical peak hours where energy would have a capacity value on the system and spread the avoided capacity cost across those hours, assigning 80% of the annual capacity cost to the summer; and 3) calculated a single avoided cost value based on the production of a typical solar photovoltaic system. (R. p. 1015, line 7-p. 1017, line 11; Tr. Vol. I, p. 385, l. 7 – p. 387, l. 11). In the proceeding below, by contrast, the Company simply assigned zero capacity value to solar, asserting that a resource must provide capacity in the winter in order to provide ***any*** capacity value. (R. p. 1017, lines 17-20; Tr. Vol. I, p. 387, ll. 17-20). Thus, QFs receive zero payments for capacity despite providing capacity value during long periods of peak summer capacity need. (R. p. 1083, lines 3-8; Tr. Vol. I, p. 453, ll. 3-8).

This appears to be the last move in a multi-year effort by SCE&G to lower payments for independently produced renewable energy: SCE&G has gutted its avoided capacity rates from $21.34 per kW-year in 2016 to $0 per kW-year in 2018. (R. p. 838, lines 14-15; p. 1,221, lines 20-21; Tr. Vol. I, p. 208, ll. 14-15; Tr. Vol. II, p. 591, ll. 20-22).

The Company's dramatic change in course to assign zero avoided capacity value for facilities that reliably produce energy over many peak hours in the summer months was criticized by all intervening parties that presented testimony. (R. pp. 1023-31; p. 1050, line 18-p. 1056, line 11; p. 1208, line 6-p. 1222, line 19; p. 1229, line 11-p. 1243, line 2; p. 1397, line 15-p. 1405, line 4; p. 1436; Tr. Vol. I, pp. 394-401, 420-426, Tr. Vol. II, pp. 578-592, 599-613, 768-775, 806). Parties recognized that the zero value has profound impacts on solar power producers and

[3] The base case was defined as SCE&G's "existing fleet of generators and the hourly load profile to be supplied by these generators." (R. p. 375; Conservation Groups' Post-Hearing Brief, p. 10). "The change case was the same as the base case except that the hourly loads were reduced by 100 megawatts [] in each hour . . . ." *Id.*

other QFs' ability to compete with SCE&G-owned resources. (R. p. 1275, line 22-p. 1278; p. 1363, line 1-p. 1366, line 6; Tr. Vol. II, pp. 645-647, 733-736). As acknowledged by a dissenting Commissioner, the new artificially low rate will be disruptive "to the dynamic solar development" that has occurred in South Carolina since 2014. (R. p. 188; Order No. 2018-322(A), p. 51).

Intervening parties documented major flaws with SCE&G's approach and the underlying studies put forward to justify it. (R. p. 1024, line 10-p. 1025, line 22; p. 1046, line 3-p. 1051, line 2; p. 1053, lines 1-20; p. 1208, line 20-p. 1221, line 12; p. 1229, line 8-p. 1242, line 11; p. 1343, line 12-p. 1351, line 9; p. 1436; Tr. Vol. I, p. 394, l. 10 – p. 395, l. 22; p. 416, l. 3 – p. 421, l. 2; p. 423, ll. 1-20; Vol. II, p. 578, l. 20 – p. 591, l. 12; p. 599, l. 8 – p. 612, l. 11; p. 713, l. 12 – p. 721, l. 9; p. 806). SCE&G's own witness conceded that solar facilities can meet SCE&G's significant summer capacity needs, that the new claimed winter capacity need could be met with conservation and other measures, and that the Company's resource plan in fact shows a capacity value for solar power. (R. p. 841, line 1-p. 842, line 9; p. 1089, lines 4-6; p. 1585; p. 1639; Tr. Vol. I, pp. 211, l. 1 – p. 212, l. 9; p. 459, ll. 4-6; Hearing Exhibit 5, JML-4, p. 5; Hearing Exhibit 9, p. 40). Solar QFs provide capacity to meet peak demand on most days between May and September and on all days during the months of June and July. (R. p. 1585; Hearing Exhibit 5, JML-4, p. 5).

The Commission nonetheless accepted SCE&G's proposed avoided cost rates, despite the evidence intervenors introduced to demonstrate that they are unjust and unreasonable. In doing so, the Commission faulted the intervenors for failing to have produced their own modeling and calculations commensurate with SCE&G's modeling and calculations. But SCE&G uses a notoriously opaque calculation method known as Difference in Revenue Requirements ("DRR") to present its avoided cost rates. (R. pp. 375-76; p. 1161, lines 16-23; p. 1317, line 2-p. 1320, line 17; p. 1321, line 3-p. 1322, line 14; p. 1325, line 11-p. 1326, line 1; Conservation Groups' Post-Hearing Brief, p. 11; Tr. Vol. II, p. 531, ll. 16-23; p. 687, l. 2 – p. 690, l. 17; p. 691, l. 3 – p. 692, l. 14; p. 695, l. 11 – p. 696, l. 1). SCE&G is the only utility in South Carolina to use this method, which does not allow other parties to model alternative rates unless they purchase a computer software license that costs tens of thousands of dollars and successfully obtain all of the modeling inputs in the less-than-45-day timeframe between the date of SCE&G's submission and their deadline to prepare responsive evidence. *See id.*; infra, p. 18, n.17; (R. p. 1025, lines 10-13; Tr. Vol. I, p. 395, ll. 10-13 (Conservation Groups' Witness Devi Glick Direct Testimony—"there were no documents provided in discovery that would allow one to replicate the calculations that the Company did last year using an updated resource plan to come up with an exact value.")). Intervenors' only recourse was to request that the Company "re-run" its DRR model using different inputs or methodological changes or using previously-approved DRR methods, but the Company did not respond. (R. p. 910, line 18-p. 912, line 3; p. 1120, line 4-p. 1,136, line 13; p. 1222, lines 1-3; Tr. Vol. I, p. 280, l. 18 – p. 282, l. 3; Tr. Vol. II, p. 490, l. 4 – p. 506, l. 13; p. 592, ll. 1-3). When the Conservation Groups requested (twice) that the Commission order SCE&G to provide calculations in accordance with prior approved methods, the Commission declined. (R. pp. 202-03; pp. 198-01; p. 1130, line 22-p. 1136, line 13; Order No. 2018-44H; Order No. 2018-42H; Tr. Vol. II, p. 500, l. 22 – p. 506, l. 13).

Despite their inability to obtain timely or complete information from SCE&G, intervenors submitted alternatives to SCE&G's proposed avoided cost rates that would comply with state and federal law and accurately compensate QFs. (R. p. 1221, line 15-p. 1222, line 11; p. 1242, line 15-p. 1243, line 2; p. 1398, line 13-p. 1405, line 12; Tr. Vol. II, p. 591, l. 15 – p.

592, l. 11; p. 612, l. 15 – p. 613, l. 2, 768-775). Rather than use this information and evidence as a basis for questioning SCE&G's proposed rates, the Commission approved them without modification and in doing so announced that the "burden of persuasion" rested with intervenors to demonstrate the superiority of their alternative rates. (R. p. 191; Order No. 2018-708, p. 3).

Commissioner Fleming dissented on the issue of avoided capacity costs—the primary subject of this appeal. (R. p. 137; Order No. 2018-322(A), p. 51). She advocated that "the Commission should reject SCE&G's position that avoided capacity cost should be set at $0.00 and find that SCE&G should maintain the previously set 2017 avoided capacity cost." *Id.*

STANDARD OF REVIEW

Any party may appeal from all or any portion of any final order or decision of the Commission regarding a public utility's rates to the South Carolina Supreme Court. S.C. Code Ann. § 58-27-2310; SCACR 203(d)(2)(A). Such appeal is in accordance with S.C. Code Ann. § 1-23-380, the statute governing judicial review of a final decision in a contested case. That section provides that the appellate court may not substitute its judgment for the judgment of the Commission as to the weight of the evidence on questions of fact. S.C. Code Ann. § 1-23-380(5). The court may reverse or modify the decision if substantial rights of the appellant have been prejudiced because the administrative findings, inferences, conclusions, or decisions are:

> (a) in violation of constitutional or statutory provisions;
> (b) in excess of the statutory authority of the agency;
> (c) made upon unlawful procedure;
> (d) affected by other error of law;
> (e) clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record; or
> (f) arbitrary or capricious or characterized by abuse of discretion or clearly unwarranted exercise of discretion.

Id.

South Carolina appellate courts will affirm a Commission decision if substantial evidence supports it. *Porter v. S.C. Pub. Serv. Comm'n*, 333 S.C. 12, 20, 507 S.E.2d 328, 332 (1998). The party challenging a Commission decision bears the burden of convincingly proving that the decision is clearly erroneous, arbitrary or capricious, or an abuse of discretion, in view of the substantial evidence on the whole record. *Heater of Seabrook, Inc. v. Pub. Serv. Comm'n of S.C.*, 324 S.C. 56, 60, 478 S.E.2d 826, 828 (1996).

"This deferential standard of review does not mean, however, that the Court will accept an administrative agency's decision at face value without requiring the agency to explain its reasoning." *Porter*, 333 S.C. at 21, 507 S.E.2d at 332. The Commission's findings of fact "must be sufficiently detailed to enable the reviewing court to determine whether the findings are supported by the evidence and whether the law has been properly applied to those findings." *Able Commc'ns, Inc. v. S.C. Pub. Serv. Comm'n*, 290 S.C. 409, 411, 351 S.E.2d 151, 152 (1986); *see* S.C. Code Ann. § 58-27-2100.

Although no particular format is required for the Commission's presentation of its findings of fact, "a recital of conflicting testimony followed by a general conclusion is patently insufficient to enable a reviewing court to address the issues." *Able*, 290 S.C. at 411, 351 S.E.2d at 152. Incorrect factual findings, "previously adopted policy," or "illusory" supporting rationale also may not serve as the basis for the Commission's action. *Hamm v. S.C. Pub. Serv. Comm'n*, 309 S.C. 282, 289, 422 S.E. 2d 110, 114 (1992) (remanding for further findings Commission decision allowing SCE&G to include lobbying group membership fees in rates because it did not see a reason to deviate from its position in prior cases); *Porter*, 333 S.C. at 26-27, 507 S.E.2d at 335 (reversing Commission decision that found there is no such thing as a negative cash working capital requirement when other regulatory agencies and courts have discussed and applied the concept); *Heater*, 324 S.C. at 64, 478 S.E.2d at 830 (setting aside a Commission decision to treat certain fees as operating revenues in a rate case where supporting rationale was "illusory"). The "expert" status of the Commission in fact "***heightens***" the Commission's duty to support its conclusions and ensure that the evidence presented is substantial. *Seabrook Island Prop. Owners Assoc. v. S.C. PSC*, 303 S.C. 493, 497, 401 S.E.2d 672, 674 (1991) (emphasis added).

Similarly, while the Commission has discretion to adopt the rate-setting method it believes is appropriate, that method must comply with the law and it should be supported by substantial evidence and make sense given facts and circumstances of the case. *Heater*, 324 S.C at 64, 478 S.E.2d at 830.

ARGUMENT

I. The Commission Erred By Improperly Shifting the Burden of Proof From the Utility Company Seeking Approval of a New Avoided Cost Rate Onto Those Challenging the Rate.

It is a fundamental principle of utility regulation in South Carolina that rates and expenses must be just and reasonable. S.C. Code Ann. § 58-27-810 (rates shall be just and reasonable); *id.* § 58-27-865(F) (unreasonable fuel costs shall be disallowed); *see also* S.C. Code Ann. §§ 58-27-865(A)(1), (A)(2)(c)) (identifying PURPA avoided costs as fuel costs); *In Re Carolina Water Serv., Inc.*, Docket No. 2006-92-WS, Order No. 2007-140, 2007 WL 4944726 (S.C. P.S.C. Nov. 19, 2007) ("The applicant bears the burden of proof of showing that its proposed rates are just and reasonable."). This Court described the burden of proof that utilities must carry on this issue in *Hamm v. South Carolina Public Service Commission*, 309 S.C. 282, 422 S.E.2d 110 (1992). Utilities enjoy an initial presumption that their rates and expenses are "reasonable and incurred in good faith." *Id.*, 309 S.C. at 286, 422 S.E.2d at 112. But once an intervening party or the Commission demonstrates a "tenable basis for raising the specter of imprudence," there is no longer a presumption of reasonableness and the utility then bears the burden to "further substantiate its claim[s]." *Id.*; *see also Utilities Servs. of S.C., Inc. v. S.C. Office of Regulatory Staff*, 392 S.C. 96, 110, 708 S.E.2d 755, 763 (2011).

The Commission is required to consider the evidence presented to it on the formal record and whether it raises the "specter of imprudence" and rebuts the utility's initial presumption of reasonableness. *Hamm*, 309 S.C. at 286, 422 S.E.2d at 122 (discussing evidence obtained through discovery and presented by the Consumer Advocate[4]); *Utilities Servs.*, 392 S.C. at 110-11, 708 S.E.2d at 763. However, "[t]he ultimate burden . . . remains on the utility." *Hamm*, 309 S.C. at 286-87, 422 S.E.2d at 112-13 (citing *Hamm v. S.C. Pub. Serv. Comm'n*, 291 S.C. 119, 352 S.E.2d 476 (1987)).[5]

This legal requirement is grounded in the recognition that it is the utility, and not the intervenors or public, whose monopoly franchise is supervised and regulated by the Commission. S.C. Code Ann. § 58-3-140; Act No. 440, Section 1, 1980 S.C. Acts; (R. p. 1300, lines 10-13; Tr. Vol. II, p. 670, ll. 10-13). Because the utility directly benefits from cost recovery enabled by Commission approval of proposed rates, and the consuming public must pay those rates once approved, the regulatory compact places the burden to justify rates with the utility. *Cf. Wash. Indep. Tel. Ass'n v. Wash. Utilities & Transp. Comm'n*, 64 P.3d 606, 608 n.2, 618 n.17 (Wash. 2003) (noting that "to offset monopoly power and ensure affordable, stable public access to a utility's goods or services, legislatures enacted rate schedules to fix the prices a utility could charge," and that burden of proof for new rates is on utility) (internal citation omitted); *Cent. State Univ. v. Pub. Utilities Comm'n*, 364 N.E.2d 6, 9 (Ohio 1977) (Locher, J., dissenting) ("The

[4] *Hamm* was decided prior to the creation of ORS.

[5] *Hamm* and *Utilities Services of South Carolina, Inc.* were both general utility rate cases rather than fuel cases, but *Hamm*'s citation to a 1987 fuel cost case to explain South Carolina's burden shifting standard indicates that the same standard applies in fuel cost and rate cases alike.

public interest increases with a monopoly for, as such, its actions are not regulated by the strictures of the market place. Accordingly, it is proper that the utility bears the burden of proof to demonstrate the unreasonableness of the prior rates and the reasonableness of the proposed rates.").

Rather than follow this well-established utility-burden framework, the Commission instead placed a burden of proof or "persuasion" on intervenors to prove the "reasonableness and viability of any alternatives to SCE&G's proposal." (R. p. 191; Order No. 2018-708, p. 3). This is directly contrary to this Court's explanation in *Hamm* that the "burden of persuasion" always rests with the utility and does not shift to intervenors. 309 S.C. at 286, 422 S.E.2d at 122. The Commission's initial order in this case—Order No. 2018-322(A)—repeatedly stated that the Commission decided to approve the proposed capacity rates "***in the absence of a viable alternative proposal being presented by any other party***." (R. p. 152; Order No. 2018-322(A), p. 15) (emphasis added)); *see* infra, pp. 20-24. This was clear reversible legal error. Under South Carolina law, it is not the intervenors' obligation to propose rates for SCE&G; rather SCE&G must meet its obligation to prove that its rates are just and reasonable and to overcome any specter of imprudence raised by the Commission or intervenors.

Here, ample evidence showed the specter if not the certainty that the proposed rates were unjust, unreasonable and imprudent. Every testifying party other than SCE&G objected to the utility's proposal to eliminate the avoided capacity component of SCE&G's avoided cost rates. The Commission never denied this, and in fact recognized that all of these parties offered evidence that the avoided capacity value should be higher than zero. (R. p. 191; pp. 99-100; Order No. 2018-708, p. 3; Order No. 2018-322(A), pp. 12-13). Voluminous evidence supported a higher avoided capacity value and showed serious flaws with SCE&G's method. Among other things:

- SCE&G's claim that it needs more capacity in the winter than it does in the summer was unjustified given evidence from prior years that SCE&G needs more capacity in the summer,[6] and given evidence that winter periods of high "peak" demand are of "short duration" and "occur [] infrequently";[7]
- SCE&G's change in the way it allocates capacity payments between the summer and winter periods was inconsistent with its prior-approved method and lacked justification;[8]
- SCE&G's own witness conceded that solar QFs have capacity value and can be used to meet SCE&G's summer capacity need;[9]
- SCE&G's proposal was contradicted by its own Integrated Resource Plan ("IRP"), which assigns a capacity value to solar resources for generation planning;[10] and
- SCE&G's use of its 2018 IRP was improper because:
  - The IRP was not finalized;[11]
  - The IRP is not an "optimal capacity expansion plan," as federal law requires;[12]
  - The IRP overstated peak winter demand;[13] and

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[6] *See* infra, pp. 24-27; (R. p. 1025, lines 14-22; p. 1049, line 3-p. 1050, line 16; p. 1209, lines 3-4; Tr. Vol. I, p. 395, ll. 14-22; p. 419, l. 3 – p. 410, l. 16; Tr. Vol. II, p. 579, l. 2 – 591, l. 2; p. 828).
[7] (R. p. 1396, lines 3-4; Tr. Vol. I, p. 766, ll. 3-4).
[8] *See* infra, pp. 24-27; (R. p. 1016, line 1-p. 1018, line 2; p. 1360, lines 6-13; Tr. Vol. I, p. 386, l. 1 - p. 388, l. 2; Tr. Vol. II, p. 730, ll. 6-13).
[9] *See* infra, p. 26; (R. pp. 841-42, p. 1089, line 7-p. 1090, line 6; p. 1585; p. 1639; Tr. Vol. I, pp. 211-212, 459; Hearing Exhibit 5, JML-4, p. 5; Hearing Exhibit 9, p. 40).
[10] *See* infra, p. 26; (R. p. 1054, lines 22-24; Tr. Vol. I, p. 424, ll. 22-24).
[11] (R. p. 1023, lines 6-7; p. 1053, lines 16-20; p. 1099, line 21-p. 1104, line 5; Tr. Vol. I, p. 393, ll. 6-7; p. 423, ll. 16-20; Tr. Vol. II, p. 469, l. 21 – p. 474, l. 5).
[12] *See* infra, pp. 38-43; (R. p. 1023, lines 9-12; p. 1104, line 6-p. 1105, line 3; p. 1109, line 2-p. 1117, line 24; p. 1345, line 10-p. 1347, line 14; p. 1436; Tr. Vol. I, p. 393, ll. 9-12; Tr. Vol. II, p. 474, l. 6 – p. 475, l. 3; p. 479, l. 2 – p. 487, l. 24; p. 715, l. 10 – p.717, l. 14; p. 806).

- The IRP used improperly high reserve margins [14] that will lead to exorbitant over-spending.[15]

This evidence, presented through expert testimony by ORS, the Conservation Groups, and SBA, showed that SCE&G significantly overexaggerated its winter capacity need and then improperly discounted solar for supposedly not helping meet it. This undoubtedly raised the specter of imprudence and thus imposed a heightened burden onto SCE&G to demonstrate that its proposed rates and resulting cost recovery are just and reasonable. Yet SCE&G failed to provide evidence that overcame the showing that its zero-capacity value approach was unreasonable. As ORS Witness Brian Horii pointed out in his surrebuttal testimony, SCE&G's repeated contentions that its zeroed capacity value is justified by the number of solar facilities that could come on line in its territory and generate power was unsupported by any evidence whatsoever. The amount of solar coming online is an "irrelevant" data point, and the Company did not demonstrate that solar "provides no capacity value because it provides no winter peak reductions." (R. p. 1229, lines 11-21; Tr. Vol. II, p. 599, ll. 11-21). The Commission took SCE&G's position as its own without grappling with this point made in Horii's surrebuttal, or any of the other intervenors' surrebuttal testimony. (R. pp. 149-50, 152; Order No. 2018-322(A), pp. 12-13, 15).

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[13] (R. p. 1212, line 14-p. 1220, line 4; p. 1231, line 5-p.1236, line 16; p. 1237, line 5-p. 1251, line 11; pp. 1457-59; p. 1210, line 22-p. 1211, line 2; p. 1214, lines 8-11; Tr. Vol. II, p. 582, l. 14, p. 590, l. 4; p. 601, l. 5 – p. 604, l. 16; p. 607, l. 5 – p. 621, l. 11; pp. 827-829); Tr. Vol. II, p. 580, l. 22 – p. 581, l. 2; p. 584, ll. 8-11 (Witness Horii Direct Testimony – SCE&G's winter peaking study and results are flawed and contrary to "engineering-based expectations" in a way that overstates demand).

[14] *See* infra, pp. 28-31; (R. p. 1019, line 8-p. 1021, line 25; p. 1046, line 2-p. 1047, line 9; p. 1048, line 1-p. 1049, line 2; p. 1210, line 4-p. 1212, line 13; p. 1212, line 14-p. 1220, line 4; p. 1230, line 1-p. 1631, line 4; p. 1234, line 16-p. 1237, line 4; Tr. Vol. I, p. 389, l. 8 – p. 391, l. 25; p. 416, l. 2 – p. 417, l. 9; p. 418, l. 1 – p. 419, l. 2; Tr. Vol. II, p. 580, l. 4 – 582, l. 13; p. 582, l. 14, p. 590, l. 4; p. 600, l. 1 – p. 601, l. 4; p. 604, l. 16 – p. 607, l. 4)

[15] (R. p. 1020, lines 1-8; Tr. Vol. I, p. 390, ll. 1-8).

The Commission's acceptance of a zero capacity rate despite the overwhelming weight of expert testimony demonstrating that it was based on flawed assumptions is analogous to the rate of return issue decided in *Hamm*. In *Hamm*, this Court ruled that SCE&G's proposal to earn a 13.25% rate of return on common equity was too high based on testimony from multiple experts in the proceeding. 309 S.C. at 287-88, 422 S.E.2d at 113-14. Experts in *Hamm* testifying on behalf of the Consumer Advocate, Department of the Navy, Commission Staff, and SCE&G all gave ranges of appropriate rates of return. *Id.* The Company sought a rate of return at the high end of these ranges, and the Supreme Court rejected that high rate based on the expert testimonies and the lack of substantial evidence to justify a rate at the top of the range. *Id.* Similarly in this proceeding, there was abundant testimony from multiple intervenors, including ORS, the Conservation Groups, and SBA that SCE&G's proposal to completely eliminate avoided capacity rates for independently produced renewable energy was unjustified, unjust, and unreasonable. The Commission could have then rejected SCE&G's proposed rate and required a new proposal or compliance filing by SCE&G. But the Commission failed to do so, instead placing the burden on intervenors to develop alternative rates for SCE&G and to meet a "burden of persuasion" for such rates. (R. p. 191; Order No. 2018-708, p. 3). That was clear error. The intervenors' only obligation was to rebut the presumption that the utility's rates were just, reasonable, and prudent.

Even if it had been intervenors' obligation to provide viable alternative proposals, they did so, and the Commission erred by disregarding them. ORS submitted a specific alternative regarding the Company's zeroing out of avoided capacity for PURPA QFs, recommending that the "capacity value be set at 19.5% of the avoided cost per [kilowatt] from a 100 [megawatt] change" to SCE&G's resource plan, with further specifications about appropriate resource plan assumptions. (R. p. 1221, lines 15-23; p. 1242, lines 16-18; Tr. Vol. II, p. 591, ll. 15-23; p. 612, ll. 16-18). This was based on SCE&G's own analysis showing that solar power contributes to summer peaks by reducing them approximately 19.5%. (R. p. 1221, lines 15-23; Tr. Vol. II, p. 591, ll. 15-23). The Commission failed to specifically acknowledge or discuss this inherent conflict with SCE&G's position that solar QFs provided no capacity value, and it further failed to acknowledge or evaluate ORS's suggested alternative. It provided only a blanket statement that the intervenors did not provide a "viable alternative." (R. p. 152; Order No. 322(A), p. 15). ORS Witness Horii went on to provide two additional alternatives: to require SCE&G to provide a new long-term avoided capacity cost estimate, or to maintain the capacity values approved in 2017. (R. p. 1222, lines 6-11; p. 1242, line 19-p. 1,243, line 2; Tr. Vol. II, p. 592, ll. 6-11; p. 612, l. 19 – p. 613, l. 2). SBA's Witness Dr. Ben Johnson also submitted alternative avoided capacity cost calculations, again showing an alternative to SCE&G's unjustified zero-capacity rate. (R. p. 1398, line 11-p. 1405, line 12; Tr. Vol. II, p. 768, l. 11 – p. 775, l. 12).

The Commission could have adopted any one of these proposals. Or, more properly, it could have directed SCE&G to revise its proposed avoided cost rates to conform to the evidence showing that solar QFs have avoided capacity value—as SCE&G recognized in prior years (R. p. 471-72; SBA Petition for Reconsideration of Order No. 2018-322(A), pp. 5-6).

Instead it did none of these things. It accepted the utility's position hook, line, and sinker, and then—in the face of evidence showing that it had taken the wrong bait—shifted the burden to avoid second-guessing what it had swallowed. As a practical matter, putting the burden on intervenors to basically produce an entire mirror-image avoided cost methodology set an impossible task for any intervening party, since the Company uses a "black box" method that ***prevents*** intervenors from being able to model and present alternative values in the same level of detail as the utility. (R. p. 376; p. 1025, lines 1-13; p. 1160, lines 16-23; p. 1317, line 2-p. 1319, line 15; p. 1321, line 13-p. 1322, line 14; p. 1325, line 11-p. 326, line 1; Conservation Groups' Post-Hearing Brief, p. 11; Tr. Vol. I, p. 395, ll. 10-13; Tr. Vol. II, p. 531, ll. 16-23; p. 687, l. 2 – p. 689, l. 15; p. 691, l. 13 – p. 692, l. 14; p. 695, l. 11 – p. 696, l. 1). The task was made even more futile by a hyper-accelerated timeline and discovery difficulties in the proceeding below, which Commissioner Fleming called out in her dissent as "troubling." (R. p. 188; Order No. 2018-322(A), p. 51).[16] When intervenors requested the SCE&G to run its model with alternative inputs or methodological changes, SCE&G refused—and the Commission denied repeated requests by the parties to require SCE&G to provide adequate information.[17] By approving

[16] SBA Witness Johnson testified that the proceeding was "conducted on a highly expedited schedule" that "d[id] not provide enough time to investigate or even discuss all of these issues raised by SCE&G's filings in complete detail." (R. 1366, lines 10-12; Tr. Vol. II, p. 736, ll. 10-12). ORS Witness Horii similarly noted that "Because of the time constraints and lack of an avoided cost calculation by SCE&G in this Docket, I was unable to produce an independent estimate of avoided capacity costs." (R. p. 1222, lines 4-6; Tr. Vol. II, p. 592, ll. 4-6). The twenty-eight day period between the date that SCE&G's testimony was filed and the March 23, 2018 deadline for intervenor testimony provided an extremely limited window for intervenors to review SCE&G's proposal, submit discovery requests, receive discovery responses, and incorporate those responses into testimony. *See* S.C. Code Ann. Regs. 103-833 (allowing Company twenty days to respond to requests). As a result, SBA filed a motion to bifurcate the proceeding and provide more time for intervenors to examine the Company's proposed changes to its avoided cost rates. (R. p. 236; SBA Motion to Bifurcate (Mar. 26, 2018)). In addition, the Conservation Groups filed a petition to require SCE&G to submit a filing that provide intervenors with the additional information necessary to propose an alternative avoided cost rate. (R. p. 231; Conservation Groups' Petition for and Order Requiring SCE&G to Comply with Order No. 2018-55 (Mar. 21, 2018)). Both the motion to bifurcate and petition were denied. (R. p. 196; p. 639, line 14-p. 647, line 1; pp. 202-03; pp. 198-201; Order No. 267; Tr. Vol. I, pp. 9-17; Order No. 2018-44H; Order No. 2018-42H).

[17] Conservation Groups' Witness Glick testified that no documents produced in SCE&G's filings or in response to discovery requests "would allow one to replicate the calculations that the Company did last year using an updated resource plan to come up with an exact value." (R. p. 1025, lines 10-13; Tr. Vol. I, p. 395, ll. 10-13). ORS Witness Horii concurred. (R. p. 1222, lines 4-6; Tr. Vol. II, p. 592, ll. 4-6). ORS specifically asked for capacity calculations with alternate inputs or methodological changes, (R. p. 1125, line 4-p. 1131, line 11; p. 1135, lines 3-5; p. 1245, line 8-p. 1246, line 25; p. 1523, lines 6-17; Tr. Vol. II p. 495, l. 4 - p. 501, l. 11; p. 505, ll. 3-5; p. 615, l. 8 – p. 616, l. 25; p. 893, ll. 6-17), but the Company did not provide the information

SCE&G's zero capacity payment based on a purported failure of intervenors to produce alternative rates, the Commission committed a legal error by shifting the ultimate burden of proof from SCE&G to intervenors challenging the proposed rates.

II. The Commission Erred by Failing to Justify Departure from Past Methods and by Adopting SCE&G's Elimination of Avoided Capacity Rates for Independent Power Producers Despite a Lack of Substantial Evidence to Support that Elimination.

The Commission's decisions are reversible if they are arbitrary and capricious, characterized by abuse of discretion, or "clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record." S.C. Code Ann. § 1-23-380(5)(e)-(f). Moreover, the Commission's decisions and findings of fact "must be sufficiently detailed to enable the reviewing court to determine whether the findings are supported by the evidence and whether the law has been properly applied to those findings." *Able Commc'ns, Inc. v. S.C. Pub. Serv. Comm'n*, 290 S.C. 409, 411, 351, S.E.2d 151, 152 (1986); *see also* S.C. Code Ann. § 1-23-350; § 58-27-2100. In this proceeding, the Commission was required to show that substantial evidence supported SCE&G's avoided cost rates for independently produced renewable energy as "just and reasonable" under South Carolina law. S.C. Code Ann. § 58-27-810. The Commission failed to do this when it dismissed the extensive evidence of all non-utility testifying parties, including Conservation Groups, ORS, and SBA demonstrating that the rate proposed by SCE&G

despite Company witnesses acknowledging that they "could do it," (R. p. 1129, line 7-p. 1130, line 21; Tr. Vol. II, p. 499, l. 7 – p. 500, l. 21). The Conservation Groups' attorney also noted at the hearing that by the time the Commission had ruled on the Conservation Groups' petition to require the Company to produce the information, there were less than ten days left until the hearing. (R. p. 202; Order No. 2018-44H). There was, in fact, one day until the hearing. As a result, the Conservation Groups were barred from making further discovery requests, *see* S.C. Code Ann. Regs. 103-833 ("Unless under special circumstances and for good cause shown, requests . . . shall not be served less than 10 days prior to the date assigned for commencement of hearing;" Company has twenty days to respond to requests), and their witnesses would not have been able to review or make use of them in any case. The Commission denied a renewed motion regarding the issue at the hearing, (R. p. 1136, lines 6-12; Tr. Vol. II, p. 506, ll. 6-5).

was not just and reasonable. In particular, SCE&G's new avoided cost approach—which completely eliminated the avoided capacity component of avoided costs—was unsupported, counterfactual, and in conflict with SCE&G's own testimony. The Commission's decision approving the Company's rates was arbitrary, capricious, an abuse of discretion, and "clearly erroneous in view of the reliable, probative, and substantial evidence on the whole record." S.C. Code Ann. § 1-23-380(5)(e)-(f). Accordingly, this Court should reverse or modify the Commission's decision. *Id.*

A. The Commission's Rationale for Departing from Past Methods and Adopting SCE&G's Zero Capacity Rate Was Unjustified.

This Court has held that it is improper for the Commission to depart from past practice where the rationale for the departure is unsupported by substantial evidence and is proven "illusory" by witness testimony. *Heater of Seabrook, Inc. v. Public Service Commission of South Carolina*, 324 S.C. 56, 63, 478 S.E.2d 826, 829 (1996). Yet that is exactly what has happened in this case. The evidence showed overwhelmingly that the Commission's Order approved an unsupported departure from past practice and approved methodology.[18] (R. p. 1017, line 12-p. 1018, line 8; p. 1221, lines 3-12; p. 1393, lines 2-14; Tr. Vol. I, p. 387, l. 12 – p. 388, l. 8; Tr. Vol. II, p. 591, ll. 3-12; p. 764, ll. 2-14).

In *Seabrook*, this Court ruled that the Commission had abused its discretion by changing a longstanding practice of treating water and sewer "availability fees" as contributions in aid of construction. 324 S.C. at 63, 478 S.E.2d at 829. The Commission sought to treat the fees as operating expenses based on the rationale that "any other treatment of those fees ran the risk of

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[18] SCE&G acknowledged that it utilized a new methodology in this proceeding. (R. pp. 251-52, n. 1; SCE&G Motion to Dismiss Conservation Groups' Petition for an Order Requiring SCE&G to Comply with Order No. 2018-55, p. 6, n.1 (Apr. 2, 2018) ("the Company believes that the previously approved methodology is no longer appropriate and that changes to the methodology are warranted and needed.")

violating the principle that operating revenues should match operating expenses." *Id.* The Court rejected this rationale as "illusory" because the unmatched expenses were negligible and because the Commission lacked substantial evidence to support this departure. *Id.*; *see also Total Envtl. Sols., Inc. v. S.C. Pub. Serv. Comm'n*, 351 S.C. 175, 183, 568 S.E.2d 365, 369 (2002) (citing *Seabrook* and rejecting another Commission decision to allocate availability fees as operating revenue due to a lack of substantial evidence to support Commission's rationale).

The Commission here provided an even weaker rationale than in *Seabrook*, and its decision to approve SCE&G's new approach to zeroing out avoided capacity payments was unjustified. The core of the Commission's rationale was that the proposed capacity rates were ". . . reasonable at this time, ***in the absence of a viable alternative proposal being presented by any other party***." (R. p. 152; Order No. 2018-322(A), p. 15) (emphasis added).[19] As discussed above, that improperly shifted the burden of proof onto intervenors, but the rationale is also "illusory" because it is flatly contradicted by the record. Intervenors did present alternative rates,[20] including but not limited to the rate that the Commission approved in 2017 (which included an avoided capacity value). The Commission summarily rejected these suggestions,

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[19] The Commission reiterated that it made its decision because "no other party presented an alternative estimate of SCE&G's avoided capacity costs." (R. p. 152; Order No. 2018-322(A), p. 15); *see also id.* at p. 16 ("In fuel proceedings before this Commission, mere assertions that fail to offer and justify an alternative just and reasonable rate are of limited value in the final determination of a final just, reasonable, and appropriate rate."); (R. p. 204-05; April 25, 2018 Directive Order (the Commission relied on the belief that they, ". . . were not presented with a viable avoided capacity cost factor by any party except SCE&G. The other parties took great pains to explain how they believe SCE&G inappropriately derived its factor, but the parties failed to present an alternative for us to consider.").

[20] ORS witness Horii recommended that the capacity value be set at 19.5% of the avoided cost per kilowatt hour from a 100 megawatt change to SCE&G's base resource plan that excludes any non-committed future resources and reflects any planned plant retirements of firm capacity. (R. p. 1221, lines 15-23; p. 1242, lines 16-18; Tr. Vol. II, p. 591, ll. 15-23; p. 612, ll. 16-18). SBA witness Johnson also developed estimates of the Company's avoided capacity costs. (R. p. 1398, line 11-p. 1405, line 12; Tr. Vol. II, p. 768, l. 11 – p. 775, l. 12).

stating that, "[t]here is no evidence to demonstrate that maintaining such rates would be appropriate or that it would not result in SCE&G's customers having to pay for excessive avoided capacity costs." (R. p. 153; Order No. 2018-322(A), p. 16). This statement is false. Intervenors presented evidence that maintaining 2017 rates or using an alternative to SCE&G's proposed rates was ***necessary*** to avoid SCE&G undercompensating independent solar providers in favor of charging its customers for unnecessary self-owned capacity. (R. p. 1020, lines 1-8; p. 1276, line 15-p. 1277, line 21; p. 1309, line 4-p. 1310, line 17; Tr. Vol. I, p. 390, ll. 1-8; Tr. Vol. II, p. 646, l. 15 – p. 647, l. 21, p. 679, l. 4 – p. 680, l. 17).

In its Order denying reconsideration and rehearing, the Commission attempted to bolster its conclusion about alternative rates by stating that the parties' alternatives were not supported by "probative evidence of a computed factor," because they were either "a mere concept for deriving a factor, such as ORS Witness Horii proposed for Commission consideration," or, in the case of the 2017 rate, were "a single element (the avoided capacity factor)" that ignored "the effects of the passage of time and all attendant changing circumstances." (R. pp. 191-93; Order No. 2018-708, pp. 3-5). These rationales are also illusory.

First, ORS Witness Horii provided more than sufficient evidence and description of his proposed alternatives to enable the Commission to adopt one of them or require SCE&G to calculate revised rates based on the alternative proposals. (R. p. 1221, lines 15-23; p. 1242, lines 16-18; Tr. Vol. II, p. 591, ll. 15-23; p. 612, ll. 16-18). The Commission simply chose not to do either. Given the opaque methodology used by SCE&G and inability of intervenors to "re-run" the Company's calculations with altered inputs, the Commission's inaction amounted to a rubber stamp of SCE&G's preferred approach. *See* supra, p.18, n.17. As discussed above, when the specter of imprudence is raised by competent evidence, the burden returned to the utility, and the

Commission should have directed the regulated utility to recalculate and revise its rates at a minimum.

Second, the Commission is well within its authority to reject an unsupported avoided cost rate proposal and retain a previously-adopted rate when that previous value is "reasonable given the evidentiary record." *In the Matter of the Petition of Crazy Mountain Wind*, Docket No. D2016.7.56, Order No. 7505B, 2017 WL 67612, at *25 (Mont. P.S.C. Jan. 5, 2017) (rejecting change to capacity contribution factor of avoided cost rate and retaining prior-adopted 5% capacity contribution factor because utilities did not "sufficiently establish[] the reasonableness of specific exceedance parameters," nor make other necessary demonstrations); *cf. In Re. Utilities Servs. of S.C., Inc.*, Docket No. 2007-286-WS, Order No. 2009-353, 2009 WL 2987189 (S.C. P.S.C. May 29, 2009) ("The general rule in administrative proceedings is that an applicant for relief, benefits, or a privilege has the burden of proof. . . . After consideration of the evidence, denial of relief is justified because a number of matters were either left unaddressed or were inadequately addressed by the Company, which left no choice but to reject the requested rate increase [and keep the old rate by default].") (final order reversed on other grounds). Other than the generic citation to the "passage of time" and "changing circumstances" since the last fuel cost docket, the Commission gave no basis for rejecting use of the prior-approved methodology given strong evidence that its replacement was fatally flawed. (R. p. 193; Order No. 2018-708, p. 5).

Third, SBA Witness Johnson did develop three avoided capacity cost estimates or "factors" based on hypothetical nuclear or natural gas power plant additions. (R. p. 1398, line 11-p. 1405, line 12; Tr. Vol. II, p. 768, l. 11 – p. 775, l. 12). Rather than engage with intervenor's alternate suggestions—which, again, intervenors had no obligation to provide under the burden requirements set out in South Carolina law—the Commission characterized them as insufficient in order to justify its avoidance of the heavily contested substantive issue presented to it in the proceeding.

B. The Commission's Order Is Not Supported by Substantial Evidence and Does Not Include Findings of Fact Necessary to Support Its Decision.

Intervenors submitted extensive evidence showing serious errors in SCE&G's unreasonable approach to providing a zero capacity rate, yet the Commission's order is devoid of the findings of fact necessary to support approval of this rate over those demonstrations. Two examples below illustrate this point.

i. Winter and Summer Compensation

First, the Commission included no evidence whatsoever to support the claim made by SCE&G and repeated by the Commission that a "resource has to provide capacity in the winter as well as in the summer in order to avoid the need for capacity and thereby have capacity value."[21] (R. p. 152; Order No. 2018-322(A), p. 15 (repeating verbatim SCE&G Witness Dr. Joseph Lynch's Direct Testimony at page 15 without any additional explanation or support). This finding is not grounded in fact and every testifying party other than SCE&G submitted evidence to show it was incorrect. *See, e.g.*, (R. p. 1024, line 18-p. 1025, line 4; p. 1208-p. 1222, line 11; p. 1229, lines 8-21; p. 1394, lines 2-14; Tr. Vol. I, p. 394, l. 18 – p. 385, l. 4; Tr. Vol. II, p. 578, l. 4 – p. 592, l. 11; p. 599, ll. 8 -21; p. 764, ll. 2-14). The Commission did not address

[21] In its Order denying reconsideration or rehearing, the Commission claims that "In Order No. 2018-322(A), this Commission made specific individual findings as to each element of SCE&G's proposed rates and we implicitly or explicitly found the underlying methodology for deriving them to be reasonable. Regarding this subject, SCE&G, upon whom the burden of proof resides, has met its burden." (R. p. 193; Order No. 2018-708, p. 5). Saying this does not make it true. The Order is rife with examples where the Commission speaks approvingly of SCE&G's rates without support or simply repeats SCE&G witnesses' contentions without any analysis. (R. p. 152-53; Order No. 2018-322(A), pp. 15-16).

this testimony in its order. Instead, the Commission signed off on the Company's "novel approach to becoming a winter-peaking utility"[22] without analyzing the appropriateness of the proposed change in the seasonal allocation of the annual capacity value—from 80% summer and 20% winter last year, to effectively a 0% summer and 0% winter split this year—despite the fact that this is a core underpinning of the Company's assertion of zero capacity value, and one that the Company never justified.[23] In dissent, Commissioner Fleming agreed with intervenors that SCE&G's assertion that it is now a winter peaking utility was questionable, and "inconsistent with their historic load profile." (R. p. 188; Order No. 2018-322(A), p. 51). She further found that "SCE&G failed to establish its avoided capacity costs" using the Commission's previously approved methodology. *Id.*

Indeed, the Commission failed to comply with the previous methodology and failed to present a rationale for moving away from the past allocation of avoided capacity rates that accounted for peaks in both summer and winter periods. Under the previously-approved methodology, SCE&G compensated QFs for meeting capacity needs in winter months, even though the Company at that time claimed to be summer peaking. In an arbitrary change of position, the Commission approved completely eliminating compensation for capacity contributions during summer, without justifying the departure from the past methodology of providing payments for QFs that avoided capacity in ***either*** winter or summer seasons, regardless of the fact that the utility was summer-peaking. The Commission also did not explain why a transition to winter-peaking would justify such a drastic change.

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[22] Utilities are classified as either summer peaking or winter peaking depending on which season they hit their highest peak load for the year.

[23] Conservation Groups note that this change in allocation is different from simply accepting the Company's assertion that it is now winter-peaking, which at best would justify a reversal of seasonal allocation to 20% summer and 80% winter.

Nor did the Commission's Order address the undisputed evidence that solar QFs can and do reduce the SCE&G electric system's summer peaks. (R. p. 841, line 1-p. 842, line 9; Tr. Vol. I, p. 211, l. 1 – p. 212, l. 9 (SCE&G Witness Lynch's Direct Testimony)). Solar QFs impact peak demands on most days of the month for five months of the year. And they reduce peak demand on ***all days*** during the months of June and July. (R. p. 1585; Hearing Exhibit 5, JML-4, p. 5). Additionally, the Company has both a summer and winter capacity need over its 15-year planning period. *See* (R. p. 847, lines 9-10; p. 1089, lines 4-6; Tr. Vol. I, p. 217, ll. 9-10 (SCE&G's "need for capacity spans the entire year"); p. 459, ll. 4-6). In other words, solar QFs produce energy when the utility is experiencing peak summer demand for electricity, and there is a demonstrated need for that capacity, meaning that these QFs should be compensated for their contribution to meeting that demand. The Company's own 2018 Integrated Resource Plan found that solar resources have a 35% capacity factor. (R. p. 1639; Hearing Exhibit 9, 2018 IRP, p. 40). This means, in SCE&G's own analysis, 35% of solar power's nameplate capacity is deemed by the Company to be firm capacity that can serve the system summer peak. It is uncontested that solar QFs will contribute to the Company's summer capacity need. And yet, in this proceeding, the Company requested that solar QFs receive no compensation for capacity contributions that they make—contributions that SCE&G's own IRP acknowledges. The Commission noted in its Order that "the Commission expects that the Company's Integrated Resource Plan will be consistent with all assertions and assumptions made in the calculation of avoided costs." (R. p. 154; Order No. 2018-322(A), p. 17). However, in finding that reliance on the 2018 IRP is appropriate, the Order failed to address this blatant inconsistency.

In order to arrive at its conclusion that capacity payments to solar QFs are no longer appropriate, SCE&G asserted the illogical position that a single capacity resource must meet

both winter and summer capacity in order to receive any capacity value at all. Under cross examination, however, Company Witness Lynch admitted that this is a false choice: SCE&G ***could*** choose separate capacity resources to meet these seasonal capacity needs (for example, a winter peaking energy efficiency resource and a solar QF), and both capacity resources would in fact avoid costs. (R. p. 1089, line 11-p. 1090, line 6; Tr. Vol. 1, p. 459, l. 11 – p. 460, l. 6). In response to the question: "What would prohibit the company from choosing one capacity resource, such as a winter [demand side management] program, to meet its winter capacity need, and another capacity resource, like a solar qualifying facility, to meet its summer capacity needs?" Witness Lynch responded: "***Well, I would suppose, nothing.***" *Id.* (R. p. 1089, line 16; Tr. Vol. 1, p. 459, l. 16 (emphasis added)). Even the Commission recognized that the Company could meet winter capacity needs through a different resource that would not require capital investment in facilities that run year-round. In fact, the Commission stated that it is "imperative that the Company take all appropriate measures to aggressively pursue economic demand side management and energy efficiency programs, targeted at reducing the winter peak and repositioning the Company to once again recognize an avoided capacity factor for solar generators." (R. p. 151; Order No. 2018-322(A), p. 14). In making this statement, the Commission implicitly recognizes that solar QFs provide capacity value in the summer.

The Commission's decision allowing SCE&G to shift away from the previous seasonal allocation of capacity value and declining to compensate independent solar providers ***at all*** for their contributions in winter or summer months should be remanded for further consideration in light of the substantial evidence in the record.

ii. Reserve Margin

The Commission's approval of SCE&G's winter reserve margin further illustrates the Commission's practice throughout its order of citing conflicting testimony from the Company and intervenors, then summarily accepting the Company's evidence while dismissing or ignoring key substantial evidence from other parties to justify the decision.

A core concept in South Carolina administrative law is that commissions must fully document their findings of fact to enable meaningful appellate review, *Able Commc'ns, Inc. v. S.C. Pub. Serv. Comm'n*, 290 S.C. 409, 411, 351 S.E.2d 151, 152 (1986), and that it is insufficient to merely recite conflicting testimony and then state a decision, *Porter v. S.C. Pub. Serv. Comm'n*, 333 S.C. 12, 18-22, 507 S.E.2d 328, 331-33 (1998). For example, in *Porter* this Court reversed a Commission decision for failing to explain its reasoning when the Commission cited contradictory expert economist testimony regarding the appropriate rate of return for a utility, but then went on to ignore the testimony of the Commission staff and Consumer Advocate witnesses in setting the rate. *Id.*

The 2018 fuel cost proceeding was the first time that SCE&G asserted that it needed a winter reserve margin[24] for planning purposes, and by all accounts except the Company's, its first bite at the apple was a big one. Intervenors heavily criticized SCE&G for its 21% margin because the margin is much higher than the 12% to 17% margins of comparable utilities, and SCE&G generated the margin using a non-industry-standard method, *see* (R. p. 987, lines 14-16; p. 1019, line 8-p. 1021, line 25; p. 1046, line 2-p. 1047, line 9; p. 1048, line 1-p. 1049, line 2; p.

[24] A reserve margin is set above the peak demand the utility anticipates experiencing and is used to provide backup capacity in case of extreme weather or unexpected generation outages. (R. p. 1018, line 22-p. 1019, line 5; Tr. Vol. I, p. 388, l. 22 – p. 389, l. 5). While reserve margins are needed to ensure system reliability, when they are set too high, they unnecessarily increase costs for utility customers because the utility collects more money to over-build its system. (R. p. 1020, lines 1-8; Tr. Vol. I, p. 390, ll. 1-8).

1210, line 4-p. 1212, line 13; p. 1212, line 14-p. 1220, line 4; p. 1230, line 1-p. 1231, line 4; p. 1234, line 16-p. 1237, line 4; Tr. Vol. I, p. 359, ll. 14-16; p. 389, l. 8 – p. 391, l. 25; p. 416, l. 2 – p. 417, l. 9; p. 418, l. 1 – p. 419, l. 2; Tr. Vol. II, p. 580, l. 4 – 582, l. 13; p. 582, l. 14, p. 590, l. 4; p. 600, l. 1 – p. 601, l. 4; p. 604, l. 16 – p. 607, l. 4).[25]

Company Witness Lynch argued that PJM and a utility in Florida had high winter reserve margins, but ORS Witness Horii specifically disproved Lynch's claims in surrebuttal. In particular, he noted that Lynch's statement was "misleading" and that the PJM figure cited by Lynch is not at all analogous to a reserve margin. (R. p. 1234, line 19-p. 1235, line 5; p. 1248, line 13-p. 1249, line 24; Tr. Vol. II, p. 604, l. 19 – p. 605, l. 5; p. 618, l. 13 – p. 619, l. 24). Horii also testified that correcting the excessive reserve margin and other problems with SCE&G's approach would result in "a rejection of their position that solar provides no capacity value." (R. p. 1232, lines 11-14;Tr. Vol. II, p. 602, ll. 11-14).

[25] Witness Horii testified that, while the component method has been used by the Company in the past and may have produced consistent results when the reserve margin methodology was not used to determine the difference in reserve margin requirements between the summer and winter season, "it is unclear if the component methodology is appropriate" for this purpose. (R. p. 1236, lines 21-22; Tr. Vol. II, p. 606, ll. 21-22). He stated that the Loss of Load Expectation, Loss of Load Probability, and Expected Unserved Energy methods are more commonly accepted in the industry and that he is "not aware of the component method being used elsewhere." (R. p. 1236, line 22-p. 1237, line 2; Tr. Vol. II, p. 606, l. 22 – p. 607, l. 2). SCE&G is capable of using a more sophisticated approach to determining its winter reserve margin. Indeed, the Company used a Loss of Load Probability Method in 2012. The Company even described that method as the "traditional and industry standard technique" in its 2013 IRP. (R. p. 1141, line 5-p. 1142, line 2; Tr. Vol. II, p. 511, l. 5 – p. 512, l. 2). Witness Horii went on to describe specific flaws in the method, including that the reserve margin threshold should be applied to forecasts of average annual peaks rather than maximum annual peaks because the risk of higher peaks is already embedded in the threshold percentage (since it is the difference between the average annual peak and the maximum annual peak). (R. p. 1218, line 10-p. 1220, line 4; p. 1237, line 5-p. 1242, line 11; Tr. Vol. II, p. 588, l. 10 – p. 590, l. 4; p. 607, l. 5 – p. 612, l. 11). Witness Glick similarly pointed out that SCE&G's method looked solely at the relationship between load and weather to calculate the winter reserve margin. (R. p. 1020, lines 10-11; Tr. Vol. I, p. 390, ll. 10-11). By contrast, peer utilities utilize a more comprehensive methodology that balances reliability and customer costs. (R. p. 1020, line 17-p. 1021, line 15; Tr. Vol. I, p. 390, l. 17 – p. 391, l. 15).

Rather than engage with the arguments of all parties, the Commission ignored completely all surrebuttal evidence put forward by non-Company witnesses. Instead, the Commission briefly recited the conflicting direct testimony of each witness, (R. pp. 150-52; Order No. 2018-322(A), pp. 13-15), and ultimately found a 21% winter reserve margin to be reasonable, (R. pp. 152-53; Order No. 2018-322(A), pp. 15-16). The Commission's finding on the reserve margin issue is as follows:

> The calculation of generation required in the winter as presented by SCE&G, including a significant reserve margin, is accepted by the Commission at this time, but remains a subject upon which alternative calculation would be entertained in future fuel proceedings. . . .
>
> The Commission also finds that SCE&G's winter reserve margin of 21% is reasonable. While the reserve margins calculated by Witness Horii and Witness Lynch differ to a degree, the differences are not significantly different. Furthermore, both witnesses recognize that SCE&G has a higher demand-side risk in the winter than in the summer. Accordingly, the Commission finds that it is appropriate for SCE&G to use a 14% reserve margin for the summer and a 21% reserve margin in the winter, based on the evidence presented in this case. The increased reserves represent a novel approach to becoming a winter-peaking utility in this fuel case. This change has potentially adverse implications for certain types of generators going forward, and the Commission considers this issue to be of significant importance in future fuel proceedings.

(R. pp. 152-53; Order No. 2018-322(A), pp. 15-16). The Commission's finding that the disagreements between Witness Horii and Witness Lynch on this issue "are not significantly different" is contradicted by the record. (R. p. 153; Order No. 2018-322(A), p. 16); *see* (R. p. 1240, lines 1-11 (Witness Horii used an 18% winter reserve margin rather than a 21% winter reserve margin and that correction in concert with others indicated SCE&G is "summer peaking," rather than "winter peaking" as SCE&G claimed, in at least six years of the planning horizon)). As reflected in Commissioner Fleming's dissent, "there are errors in SCE&G's Reserve Margin calculations," and setting the winter reserve margin at 21% "seems excessive" given the evidence presented. (R. p. 188; Order No. 2018-322(A), p. 51).

Further, the Commission's recitation of conflicting testimony and cryptic statement that "alternative calculation would be entertained" on reserve margins in the future is insufficient according to this Court's precedent. *Porter*, 333 S.C. at 18-22, 507 S.E.2d at 331-33 (requiring more than a decision following conflicting testimony); *Able*, 290 S.C. at 411, 351 S.E.2d at 152 (requiring specific findings of fact to enable meaningful review).

III. The Commission Erred by Allowing SCE&G to Eliminate Avoided Capacity Payments to Independent Power Producers Despite Evidence that the Elimination Violated Federal Law.

Federal law requires that rates paid for independently produced renewable energy: 1) shall be just and reasonable to the consumers of the electric utility and in the public interest, and 2) shall not discriminate against QFs. 16 U.S.C. § 824a-3(b); 18 C.F.R. § 292.304(a)(1).[26] PURPA rates are set at the utility's avoided cost of producing the next incremental unit of electricity with "incremental cost," defined as "the cost to the electric utility of the electric energy which, but for the purchase from such [QF], such utility would generate or purchase from another source." 16 U.S.C. § 824a-3(d). The Federal Energy Regulatory Commission's ("FERC") PURPA implementing regulations reiterate that "[e]ach electric utility ***shall purchase***, in accordance with §292.304 . . . ***any*** energy and capacity which is made available from a qualifying facility." 18 C.F.R. § 292.303(a) (emphasis added); *see* 18 C.F.R. §§ 292.304(a)(2),

[26] In 1980 FERC adopted regulations to ensure that utilities fulfill their legal duty under PURPA to "purchase electric energy and capacity made available by qualifying cogenerators and small power producers at a rate reflecting the cost that the purchasing utility can avoid as a result of obtaining the energy and capacity from these sources, rather than generating an equivalent amount of energy itself or purchasing the energy or capacity from other suppliers." *Small Power Production and Cogeneration Facilities; Regulations Implementing Section 210 of the Public Utility Regulatory Policies Act of 1978*, 45 Fed. Reg. 12,214, 12,216 (Feb. 25, 1980) (to be codified at 18 C.F.R. pt. 292). Implementation of the rules was reserved to state public utilities commissions. *Id.* at 12,215.

292.101(b)(6). These rates must reflect the cost that the purchasing utility ***can avoid*** as a result of obtaining energy and capacity from these QFs. 18 C.F.R. § 292.101(b)(6) (emphasis added).

FERC has interpreted these regulations "to impose on electric utilities an obligation to purchase all electric energy and capacity made available from qualifying facilities with which the electric utility is directly or indirectly interconnected." Order No. 69, 45 Fed. Reg. 12,214-02, 12,219; *Greensboro Lumber Co. v. F.E.R.C.*, 825 F.2d 518, 522 (D.C. Cir. 1987). FERC has expressly rejected attempts by utilities or state regulators to limit or eliminate avoided capacity payments. FERC has stated that any limitation on a utility's requirement to offer payments for capacity must bear a "clear relationship to [the utility's] actual demand for capacity." *Hydrodynamics Inc.*, 146 FERC ¶ 61,193, 61,846 (Mar. 20, 2014);[27] *see also Windham Solar LLC & Allco Fin. Ltd.*, 157 FERC ¶ 61,134 (Nov. 22, 2016) (rejecting a state regulator's finding that a utility "has no need for capacity.") The Commission's elimination of avoided capacity payments without a clear relationship to SCE&G's actual demand for capacity—and in fact, contrary to the overwhelming weight of the evidence in the record—violates federal law.

Further, the regulations outline factors that "shall, to the extent practicable, be taken into account" when state commissions determine avoided costs, including but not limited to:

- Availability of capacity or energy from QFs during system daily and seasonal peak periods;
- Individual and aggregate value of energy and capacity;
- Smaller capacity increments and shorter lead times for additional capacity from QFs; and

[27] In *Hydrodynamics Inc.*, FERC stated that limiting a QF's ability to receive avoided capacity payments without a "clear relationship" to the utility's actual demand for capacity "is inconsistent with PURPA's goal of promoting QF development and fails to implement the Commission's regulations requiring an electric utility to purchase any capacity which is made available from a QF." *Id.*

- The relationship of availability of energy and capacity from the QF to the ability of the utility to avoid costs, including deferral of capacity additions and reduction in fossil fuel use.

18 C.F.R. § 292.304(e)(1)-(4).

FERC has also set out specific requirements related to aggregating capacity value and to account for the availability of capacity from QFs during peak periods. FERC Order 69 states that the "aggregate capacity value must be considered in the calculation of rates for purchases, and the payment distributed to the class providing the capacity," even though individual QFs might be intermittent and insufficient to allow the purchasing utility to avoid constructing or reserving capacity. 45 Fed. Reg. 12,214, 12,225. FERC continued:

> Some technologies, such as [solar] photovoltaic cells, although subject to some uncertainty in power output, have the general advantage of providing their maximum power coincident with the system peak when used on a summer peaking system. The value of such power is greater to the utility than power delivered during off-peak periods. Since the need for capacity is based, in part, on system peaks, the qualifying facility's coincidence with the system peak should be reflected in the allowance of some capacity value and an energy component that reflects the avoided energy costs at the time of the peak.

Id.

Finally, FERC has set out specific requirements for utilities that use the DRR method regarding how they develop their future energy capacity plans, which determine whether QFs can avoid capacity costs. FERC Order 69 states that the evaluation of the difference between a plan with and without a QF must be done based on "the utility's optimal capacity expansion plan," defined as "the schedule for the addition of new generating and transmission facilities which, based on an examination of capital, fuel, operating, and maintenance costs, will meet a utility's projected load requirements ***at the lowest total cost.***" 45 Fed. Reg. 12,216 n.6 (Feb. 25, 1980) (emphasis added).

The zero value rate for avoided capacity that SCE&G proposed and the Commission approved violates federal law. It is discriminatory and is not just and reasonable nor in the public interest because the record demonstrates that solar QFs can and do reduce the Company's capacity costs, and the methodology SCE&G used to calculate its avoided capacity costs does not follow FERC requirements.

A. The Record Demonstrates that Solar QFs Can and Do Reduce SCE&G's Capacity Costs.

It is undisputed that solar QFs can and do reduce the system's summer peaks. *See* (R. p. 1395, lines 15-18 (SBA Witness Johnson Rebuttal Testimony – "it is self-evident that generators that operate during hundreds or thousands of daytime hours are contributing a very substantial value to the overall generating resource portfolio, notwithstanding the fact that they do not operate at night, or during the early morning hours."); (R. p. 1221, lines 15-23; Tr. Vol. II, p. 591, ll. 15-23 (ORS Witness Horii Direct Testimony recommending an alternative avoided cost recommendation based on SCE&G's own solar analysis); (R. p. 1585; Hearing Exhibit 5, JML-4, p. 5 (SCE&G Witness Lynch Exhibit indicating that solar QFs reduce peak summer demand); R. p. 146; Order No. 2018-322(A), p. 9 (acknowledging SCE&G's analysis that additional generation has a "small impact in summer")). The Company cannot deny that solar QFs help meet capacity needs for at least those months. *See* (R. p. 847, lines 9-11; Tr. Vol. I, p. 217, ll. 9-11) (Witness Lynch Direct Testimony - SCE&G's "need for capacity spans the entire year")).

Rather than require SCE&G to set rates to compensate QFs for their contribution those summer capacity needs, however, the Commission erroneously found that "[a] generating resource has to provide capacity in the winter as well as in the summer in order to avoid the need for capacity and thereby have capacity value . . . because additional solar does not provide capacity during the winter period, the Company is unable to avoid any of its projected future capacity needs from additional solar." (R. p. 152; Order No. 322(A) at 15). But this finding is wholly unsupported. *See* supra, p. 24 (noting that this portion of the order quotes directly from SCE&G's witness' testimony without attribution or further supportive explanation). Further, the federal PURPA regulations specifically require that the "[a]vailability of capacity or energy from QFs during system daily and seasonal peak periods," 18 C.F.R. § 292.304(e)(2), be considered in determining avoided costs. The Commission's failure to properly account for the availability of solar QF capacity during daily and summer peak periods directly conflicts with this federal requirement and with FERC's clarification that it is inconsistent with PURPA's purpose to limit a QF's ability to receive avoided capacity payments without a "clear relationship" to the utility's actual demand for capacity, which in this case exists in, and is aided by solar QFs in, the summer. *Hydrodynamics Inc.*, 146 FERC ¶ 61,193, 61,846 (Mar. 20, 2014).

B. SCE&G's Changes in the Studies and Assumptions That Underlie Its Proposal to Eliminate Avoided Capacity Payments Are Unsupported and All Appear Aimed at Discriminating Against QFs.

The Conservation Groups, ORS, and SBA witnesses in this proceeding universally recommended that the Commission reject SCE&G's capacity methodology, *see, e.g.*, (R. p. 1209, lines 2-3; p. 1221, lines 8-10; p. 1053, line 24-p. 1054, line 12; p. 1318, lines 10-20; pp. 1457-59; Tr. Vol. II, p. 579, ll. 2-3 (recommending that SCE&G's position of zero avoided capacity costs be rejected because SCE&G has "not adequately demonstrated that winter capacity needs are the same or greater than summer capacity needs"); p. 591, ll. 8-10 (finding that the Company is relying on questionable "assumptions and studies conducted in the 2018 [Integrated Resource Plan]."); Tr. Vol. I, p. 423, l. 24 – p. 424, l. 12; Tr. Vol. II, p. 688, ll. 10-20; p. 827-829), as did dissenting Commissioner Fleming, (R. p. 188; Order No. 2018-322(A), p. 51). Each of the capacity-related changes made by SCE&G and challenged by intervenors in this proceeding had the individual and aggregated effect of discriminating against solar QFs. This is because every change contributed to SCE&G's assertion that winter capacity needs are the same or greater than summer capacity needs.

First, SCE&G's winter reserve margin proposal artificially inflated the amount of capacity the Company says it needs in early winter mornings when solar QFs are less likely to produce electricity. *See* supra, pp. 28-31. Second, SCE&G's change to its winter peak load forecast similarly overstated the amount of capacity the Company would purportedly need at those times. *See* supra, p. 15, n.13. SCE&G witness Lynch admitted at the hearing that the peak demand and reserve margin forecast are largely responsible for the Company's proposal to completely eliminate avoided capacity payments to QFs. (R. p. 991, lines 3-6; p. 1102, lines 1-25; Tr. Vol. I., p. 361, ll. 3-6; Tr. Vol. II, p. 472, ll. 1-25). Third, SCE&G's change to its seasonal allocation of capacity costs—from 80% summer and 20% winter last year to a 0% summer and 0% winter split this year, rather than to the 20% summer and 80% winter split that would be the logical result from a summer-to-winter system peaking change—deprived solar QFs of any compensation for their contribution during summer months. *See* supra, pp. 24-27. And fourth, SCE&G's change to its 2018 Integrated Resource Plan—the plan that forms the basis of avoided costs calculations—to "bake-in" as unavoidable the addition of a combined-cycle unit that the Company has not yet committed to arbitrarily minimized solar QFs' ability to receive payment for meeting capacity needs.[28] The ability to delay or avoid fossil fuel

[28] As noted above, *see* supra, p. 6, n.3, SCE&G uses a capacity methodology that compares two cases—a base case and a case that reduces load by the capacity of a QF in each hour over the Company's 15-year IRP planning horizon. When the base case is overinflated with uncommitted (and still avoidable) capacity additions, there is less capacity for QFs to avoid. Witness Lynch admitted under cross examination that SCE&G may not build the combined cycle plant SCE&G included as "committed" and unavoidable for the year 2023 in its IRP. (R. p. 1101, line 11-p. 1105, line 5; Tr. Vol. II, p. 471, l. 11 – p. 475, l. 5).

generation resources like natural gas plants epitomizes "avoidable" costs. Failing to compensate QFs for this capacity value discriminates against them in contravention of the federal law requirement that utilities provide this compensation. *See* 18 C.F.R. § 292.303(a).

These four changes were all compounded by SCE&G's refusal to consider demand side management or other options to meet its purported winter capacity needs. SBA Witness Johnson explained in detail why efforts and programs targeted to help reduce demand during the rare winter peaks—e.g., using SCE&G's existing pumped storage facility, buying energy on the wholesale power market, standby generator programs, programs that price energy to encourage industrial and commercial customers to use less energy in the cold mornings when residential customers are turning their heat up high—are a less costly option for meeting capacity needs than building a new gas plant that runs all the time. (R. p. 1396, line 1-p. 1397, line 13; p. 1457; Tr. Vol. II, p. 766, l. 1 – p. 767, l. 13; p. 827). SCE&G did not consider these options and how they might better pair with solar to reduce overall system costs, but instead stated it would ***only*** compensate QFs that provided capacity during both the winter and summer peaks. *See* supra, pp. 20-24.

Under PURPA, the South Carolina Public Service Commission has the obligation to ensure that utility rates do not discriminate against QFs. When every major change SCE&G made to the studies and assumptions underlying its proposal to zero out avoided capacity payments was criticized by intervening parties as unsupported, *see* supra, p. 7, and every major change resulted in the deprivation of capacity value for solar QFs, the Commission was required to investigate the issue and ensure compliance with PURPA. The Commission must ensure that SCE&G's changes were made for a non-discriminatory purpose rather than out of a self-serving desire to build its own combined cycle plant rather than pay independent power producers. The

Commission's statement, for example, that Company's "novel approach" to calculating reserve margins "has potentially adverse implications for certain types of generators going forward[,]" (R. p. 153; Order No. 2018-322(A), p. 16), is plainly insufficient to meet its responsibility under the law to look behind SCE&G's actions to see if they in fact do discriminate against and "disrupt[] . . . solar development," as Commissioner Fleming recognized in her dissent. (R. p. 188; Order No. 2018-322(A), p. 51).

C. The Commission Erred by Failing to Require SCE&G to Optimize Its Resource Plan As Federal Law Demands.

The Commission committed a further error of law by failing to require SCE&G to meet the federal requirements for using the DRR method. None of the Commission's orders or directives in this proceeding address the relevant federal requirements despite repeated briefing on the issue. (R. pp. 385-87; pp. 509-11; pp. 460-63; Conservation Groups' Post-Hearing Brief, pp. 20-22; Conservation Groups' Petition for Reconsideration, pp. 36-38; SBA's Proposed Order, p. 12-15); *see also* (R. p. 1112, lines 14-20; Tr. Vol. II, p. 482, ll. 14-20); S.C. Code Ann. § 1-23-380(5)(d).

FERC guidance is clear. FERC Order 69 explains the DRR method of estimating avoided costs and its underlying requirement to use an "optimal capacity expansion plan." The DRR method:

> [C]alculate[s] the total (capacity and energy) costs that would be incurred by a utility to meet a specified demand in comparison to the cost that the utility would incur if it purchased energy or capacity or both from a qualifying facility to meet part of its demand, and supplied its remaining needs from its own facilities. The difference between these two figures would represent the utility's net avoided cost. In this case, the avoided costs are the excess of the total capacity and energy cost of the system ***developed in accordance with the utility's optimal capacity expansion plan***.

45 Fed. Reg. at 12,216 (emphasis added). The FERC order goes on to specify that "An optimal capacity expansion plan is the schedule for the addition of new generating and transmission facilities which, based on an examination of capital, fuel, operating and maintenance costs, will meet a utility's projected load requirements at the ***lowest total cost***." *Id.* at 12,216 n.6 (emphasis added).

Public Service Commissions across the country have recognized this "optimal capacity expansion plan" requirement as the bedrock of the DRR method.[29] The DRR method requires an accurate simulation of forecasted utility system needs and the least cost mix of potential

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[29] *See, e.g., In the Matter of the Application of PacifiCorp for Approval of an IRP-Based Avoided Cost Methodology For QF Projects Larger Than One Megawatt*, Docket No. 03-035-14, at 6 (Utah P.S.C. Oct. 31, 2005) (explaining that, for the DRR method, "[t]o determine an optimal resource portfolio, with and without the QF, a capacity expansion planning model and a production cost model are employed to simulate the acquisition and use of resources in the operation of the utility system. . . . the avoided costs of a purchase from a QF are the differences in the net present value of revenue requirements for the two ***optimal resource portfolios***, with and without the QF."); *In Re Virginia Elec. & Power Co.*, Case No. PUE980463, 2000 WL 1510083, at *1 (Va. S.C.C. July 28, 2000) (in employing the Differential Revenue Requirement methodology, Virginia Power Company used "the PROVIEW computer model to develop an ***optimal capacity expansion plan*** and the PROMOD computer model to determine the expected total system dispatch and energy mix to serve as a base case," then developed two alternate cases assuming the addition of a 150 MW block of a new qualifying facility at zero cost); *Midwest Renewable Energy Projects LLC v. Interstate Power & Light Co.*, AEP-05-1, 2005 WL 3627604 (Iowa U.B. Dec. 28, 2005), *clarified on rehearing* (May 31, 2007) (approving Interstate Power and Light Company's use of the Electric Generation Expansion Analysis System model—"an industry-recognized analytical tool for system expansion planning"—to calculate avoided costs; the model "considers all combinations of existing resources and future resource alternatives . . . to first derive an ***optimal resource expansion plan*** and then . . . to derive a second plan . . . identical to the first but with an 80 MW wind farm at zero cost," and the resulting annual cost differences between the two resource plans reflects the avoided cost); *In Re Idaho Power Co.*, Case No. IPC-E-95-9, Order No. 2656, 172 P.U.R.4th 150 (Idaho P.U.C. Sept. 4, 1996) (explaining that the avoided cost determination under the DRR method involves a series of steps beginning with the preparation of an IRP by the utility that selects "the ***least cost*** combination of resources," including both supply side and demand side resources, for meeting load under the most likely economic scenario); *Re Cogeneration & Small Power Prod.*, Case No. 7457, Order No 65731, 1982 WL 992991 (Md. P.S.C. Apr. 7, 1982) (rejecting argument of Baltimore Gas and Electric Company that it was unnecessary to examine the impact of potential cogeneration and small power production on the Company's PROMOD-generated 10-year "optimal capacity expansion plan" to derive avoided capacity costs).

resources to meet those needs. Otherwise, utilities could game the system, projecting system needs and costs in a way that undermines competition and favors future utility-owned resources. (R. p. 920, lines 20-24; p. 922, lines 14-20; Tr. Vol. I, p. 290, ll. 20-24; p. 292, ll. 14-20). For instance, when a utility "bakes" certain resources into the base case in a sub-optimal way, the utility effectively prohibits qualifying facilities from competing against those resources on the basis of cost because it misrepresents the true base case costs and thus undervalues the avoided cost rate. (R. p. 1440; Tr. Vol. II, p. 810). By basing avoided cost rates on a plan that assumes that a natural gas fired power plant ***must*** be built in 2023 and is unavoidable, SCE&G built in an assumption that non-utility solar resources added under PURPA could not delay or replace the power plant and thus should not be paid now for the associated capacity value. *See* supra, p. 36.

Despite FERC guidance requiring development of an optimal plan when the DRR capacity method is used, SCE&G conceded that it used a simple spreadsheet model to compare generation resources—one that does not have the capabilities necessary to yield an "optimal capacity expansion plan." (R. p. 1109, line 21-p. 1110, line 10; Tr. Vol. II, p. 479, l. 21 – p. 480, l. 10). SCE&G does not use any optimization modeling software for this function that could evaluate various resources and select the least cost combination of options to meet future needs. *Id.* In fact, SCE&G Witness Lynch admitted that the spreadsheet actually analyzes only two resource options for meeting capacity needs in 2023; the Company is "really moving around just combustion turbines and combined cycle" plants. (R. p. 1116, line 25-p. 1117, line 1; Tr. Vol. II, p. 486, l. 25 – p. 487, l. 1). The Company did not compare the cost effectiveness of these gas resources to market purchases of power, solar, energy efficiency, or battery storage. *Id.*; (R. p. 1440; Tr. Vol. II, p. 810 (highlighting SCE&G's failure to evaluate additional efficiency resources or firm capacity purchases specifically targeted at unusually cold winter mornings:

"Because the 'Base' expansion plan . . . ignores these types of opportunities (as with the modeling that was done in this proceeding), the avoided costs that are calculated using the DRR method will be underestimated.")).

The Commission's approval of SCE&G's mistaken assumptions can have detrimental consequences for qualifying facility generators, as was made clear in 2017. Company Witness Lynch testified that the assumption that the two new V.C. Summer nuclear units would be part of the Company's resource portfolio likely drove capacity rates down in the 2017 fuel case. (R. p. 932, lines 12-18; Tr. Vol. I, p. 302, ll. 12-18). That assumption ultimately proved wildly incorrect, and Witness Lynch confirmed that the Company's own preliminary estimates indicated that actual avoided capacity costs increased shortly after the V.C Summer units were abandoned. (R. p. 1116, line 25-p. 1117, line 1; p. 951, lines 6-23; Tr. Vol. II, p. 486, l. 25 – p. 487, l. 1; p. 321, ll. 6-23). If allowed to stand, suboptimal capacity expansion planning assumptions in the wake of the V.C. Summer debacle will further discriminate against qualifying facilities.

SCE&G's capacity planning practices stand in stark contrast to more sophisticated, industry-standard modeling performed in other jurisdictions, which consider a wide array of options and optimize for the particular outcome of lowest cost. *See supra*, p. 39, n.29 (cases where utilities used EGEAS and PROMOD); (R. 510; CCL and SACE Pet. for Reconsideration, p. 37 (discussing additional optimization models such as Strategist, Midas, System Optimizer, or AURORA)).[30] Multiple intervenor witnesses explained that SCE&G's simple spreadsheet

[30] It is possible that a utilities commission could find a utility's capacity expansion plan to be "least-cost" despite not being derived from an optimization model that allows for "endogenous" consideration of "all realistic sizes of capacity additions," but ***only*** where the utility considers a sufficient number of resource combinations, which SCE&G did not do in this case. *See Re Potomac Elec. Power Co.*, Case No. 834, Order No. 8418, 72 P.U.R.4th 168, 177 (D.C.P.S.C. Feb. 12, 1986) (approving Potomac Electric Power Company's capacity expansion planning model as deriving a "realistic, least-cost mix of resources" because it considered a wide range of

approach is at odds with accepted industry practice, including the practice of other South Carolina utilities. (R. p. 376; p. 1161, lines 16-19; p. 1318, lines 11-15; p. 1347, line 15-p. 1348, line 18; Conservation Groups' Post-Hearing Brief, p. 11; Tr. Vol. II, p. 531, ll. 16-19; 688, ll. 11-15; p. 717, l. 15 – p. 718, l. 18).

Simply put, SCE&G failed to demonstrate that its resource plan was optimized to select "least cost" resources. Thus, its avoided cost calculations based on the sub-optimized plan violate federal law under FERC Order 69.[31] The Commission committed an error of law by approving the Company's avoided cost calculations based on the admittedly non-optimized planning process. The speculative resource additions that SCE&G identified in its capacity expansion plan were not appropriate for inclusion in the base case scenario that the Company used to implement the DRR method.

The Commission's Order does not address this violation of FERC Order 69, despite repeated briefing and requests from intervening parties and their witnesses to do so. In this regard, the Commission also violated the statutory requirement that its orders address material issues raised in the proceeding with adequate specificity to allow a reviewing court to determine

twenty-one scenario runs with "all feasible combinations of coal unit additions," though directing the Company to "attempt in the future to modify its model to incorporate the ability to endogenously consider all realistic sizes of capacity additions" (emphasis added)).

[31] It is important to note that the DRR method comparing the difference between two complex computer model scenarios is not the only method for calculating the value of future capacity. FERC recognizes other more common methods that do not require IRP optimization. For instance, the peaker method involves calculating the easily-verified cost of building a peaker power plant to meet projected capacity needs and comparing that cost with the non-utility PURPA generator. Without proper oversight, SCE&G gains the advantage of using a complex, essentially unverifiable method for calculating capacity payments, without incurring the balancing federal requirement that the utility demonstrate that it has reasonably determined the least-cost path forward for ratepayers. *See Re Sierra Pac. Power Co.*, Docket No. 87-126, 85 P.U.R. 4th 91, 103 (Nev. P.S.C. July 15, 1987) (rejecting DRR method and criticizing it as "difficult, complex and expensive to implement, and reliant upon 'black box' computer models").

whether its decisions comport with applicable law. S.C. Code Ann. § 1-23-350; *see also Able*, 290 S.C. at 411, 351 S.E.2d at 152 (remanding Commission decision for lack of adequate specificity and findings of fact). The Conservation Groups ask that this Court remand the avoided capacity rate decision back to the Commission with instruction that the Company cannot calculate rates with the DRR method except with an ***optimal capacity expansion plan***, in order to comply with FERC Order 69.

CONCLUSION

For the reasons set forth above, Appellants respectfully request that the Court reverse the Commission's approval of SCE&G's avoided cost rates, specifically the elimination of avoided capacity rates, and remand this matter to the Commission.

Respectfully submitted this the 11th day of June, 2019.

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THE STATE OF SOUTH CAROLINA
In the Supreme Court

APPEAL FROM THE PUBLIC SERVICE COMMISSION

Appellate Case No. 2018-001165 and 2018-002117

Commission Docket No. 2018-2-E

South Carolina Coastal Conservation League and Southern Alliance for Clean Energy, Appellants,

v.

South Carolina Electric & Gas, CMC Steel South Carolina, South Carolina Energy Users Committee, South Carolina Solar Business Alliance, LLC, Southern Current, LLC and South Carolina Office of Regulatory Staff, Respondents;

and

South Carolina Solar Business Alliance, LLC, Appellant,

v.

South Carolina Coastal Conservation League and Southern Alliance for Clean Energy, South Carolina Electric and Gas, CMC Steel South Carolina, South Carolina Energy Users Committee, Southern Current, LLC, and South Carolina Office of Regulatory Staff,

Of whom South Carolina Electric & Gas and South Carolina Office of Regulatory Staff, are Respondents.

RULE 211(b) CERTIFICATE

The undersigned certifies that this Final Brief complies with Rule 211(b), SCACR.

June 11, 2019

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